A PROBABILISTIC FRAMEWORK FOR TV−NEWS STORIES
DETECTION AND CLASSIFICATION (WedPmPO1)

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Abstract :
In this paper we face the problem of partitioning the news videos into stories, and of their classification
according to a predefined set of categories. In particular, we propose to employ a multi−level probabilistic
framework based on the Hidden Markov Models and the Bayesian Networks paradigms for the segmentation
and the classification phases, respectively. The whole analysis is carried out exploiting information extracted
from the video and the audio tracks using techniques of superimposed text recognition, speaker
identification, speech transcription, anchor detection. The system was tested on a database of Italian news
videos and the results are very promising.